



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/751,673	12/29/2000	Michael F. Deering	5181-54400/P-4832	9125

7590

03/04/2003

Dan R. Christen  
Conley, Rose, & Tayon, P.C.  
P.O. Box 398  
Austin, TX 78767

EXAMINER

NGUYEN, PHU K

ART UNIT

PAPER NUMBER

2671

DATE MAILED: 03/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## 2671

Part of Paper No. 4

Art Unit: 2671

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 15, 16, 30, 31, and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over LIMBERG (6,441,843).

As per claim 1, Limberg teaches the claimed "method for generating pixels for display device" comprising:

"receiving graphics data" (Limberg, figure 2, Digitized Baseband Symbol Coding Input);

"rendering a first plurality of samples" (Limberg, column 2, lines 51-63);

"filtering said first plurality of samples" (Limberg, Channel Equalizer 10);

"computing first negativity value based on said first set of output pixels" (Limberg, Error Detector for Decision feedback 21); and

"adjusting said first filter in response to said first negativity value" (Limberg, Filter Coefficient Update Calculation Apparatus 20).

It is noted that Limberg does not explicitly teach that "the first negativity value measures an amount of negativity in said frame" as claimed. However, Limberg's Error Detector 21, which calculates the error signal, suggests the "amount of negativity" of the video signal as claimed. Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to configure Limberg's method as claimed

because the error of the signal after filtered can be regarded as "amount of negativity" in said generated frame.

Claim 2 adds into claim 1 "a negativity threshold" which would have been obvious to Limberg's error which allows some degree of tolerance.

Claim 3 adds into claim 2 "the threshold is adjustable by a user" which would have been obvious to Limberg's error with some degree of tolerance decided by Applicant.

Claim 15 adds into claim 1 "a display device" which Limberg teaches in the display on the Television (column 1, lines 11-15).

As per claim 16, Limberg teaches the claimed "computer readable memory medium" comprising the steps of:

"receive graphics data" (Limberg, figure 2, Digitized Baseband Symbol Coding Input);

"render a first plurality of samples" (Limberg, column 2, lines 51-63);

"filter said first plurality of samples" (Limberg, Channel Equalizer 10);

"compute first negativity value based on said first set of output pixels" (Limberg, Error Detector for Decision feedback 21); and

"adjust said first filter in response to said first negativity value" (Limberg, Filter Coefficient Update Calculation Apparatus 20).

It is noted that Limberg does not explicitly teach that "the first negativity value measures an amount of negativity in said frame" as claimed. However, Limberg's Error Detector 21, which calculates the error signal, suggests the "amount of negativity" of the

Art Unit: 2671

video signal as claimed. Furthermore, although Limberg actually teaches the hardware (figures 1-2) to perform these steps, not as the instructions of computer program as claimed, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to write a computer program to implement the functions of the device as claimed. Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to configure Limberg's method as claimed because the error of the signal after filtered can be regarded as "amount of negativity" in said generated frame.

Claim 17 adds into claim 16 "a negativity threshold" which would have been obvious to Limberg's error which allows some degree of tolerance.

Claim 18 adds into claim 17 "the threshold is adjustable by a user" which would have been obvious to Limberg's error with some degree of tolerance decided by Applicant.

Claim 30 adds into claim 16 "a display device" which Limberg teaches in the display on the Television (column 1, lines 11-15).

As per claim 31, Limberg teaches the claimed "graphic system" comprising:

"a graphics data stream" (Limberg, figure 2, Digitized Baseband Symbol Coding Input);

"a sample buffer" (Limberg, RAMs 41-46);

"sample-to-pixel calculation unit" (Limberg, Channel Equalizer 10);

"a negativity computation unit" (Limberg, Error Detector for Decision feedback 21); and

"adjusting said first filter in response to said first negativity value" (Limberg, Filter Coefficient Update Calculation Apparatus 20).

It is noted that Limberg does not explicitly teach that "the first negativity value measures an amount of negativity in said frame" as claimed. However, Limberg's Error Detector 21, which calculates the error signal, suggests the "amount of negativity" of the video signal as claimed. Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to configure Limberg's method as claimed because the error of the signal after filtered can be regarded as "amount of negativity" in said generated frame.

Claim 32 adds into claim 31 "a negativity threshold" which would have been obvious to Limberg's error which allows some degree of tolerance.

Claim 33 adds into claim 32 "the threshold is adjustable by a user" which would have been obvious to Limberg's error with some degree of tolerance decided by Applicant.

Claim 46 adds into claim 311 "a display device" which Limberg teaches in the display on the Television (column 1, lines 11-15).

Accordingly, the claimed inventions as represented in claims 1-3, 15-18, 30-33, and 46 do not represent a patentable distinction over the art of record.

Claims 4-14, 19-29, and 34-45 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phu K. Nguyen whose telephone number is (703)305 - 9796. The examiner can normally be reached on M-F 8:00-4:30.

The fax phone numbers for the organization where this application or proceeding is assigned are (703)308-6606 for regular communications and (703)308-6606 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3800.

Phu Nguyen  
February 27, 2003

*Phu Nguyen*  
PHU NGUYEN  
RECEIVED  
FEB 27 2003